

# South Africa accords patent to an AI system

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**In news-**In a world first, South Africa accorded **patent to an Artificial Intelligence(AI) system relating to a food container based on fractal geometry.**

**Why is this move unique & controversial?**

- According to patent experts, granting a patent to an AI system is anything but mundane
- That's because the **inventor is not a human being – it is an artificial intelligence (AI) system called DABUS.**
- The innovation in question involves interlocking food containers that are easy for robots to grasp and stack.
- The patent application listing DABUS as the inventor was filed in patent offices around the world, including the U.S., Europe, Australia, and South Africa.
- But only South Africa granted the patent (Australia followed suit a few days later after a court judgment gave the go-ahead).
- South Africa's decision has received widespread backlash from intellectual property experts.

**Why is the DABUS patent rejected by other countries?**

The United States Patent and Trademark Office and the European Patent Office rejected these applications in the formal examination phase. They gave three reasons:

1. First, their **respective patent laws only provide for human inventors not AI** as indicated by the use of pronouns such as "him" and "her" in their text.
2. Second, **ideas, for the purposes of patents, require the element of "mental conception"** something of which only a human mind is capable.

3. Finally, inventorship comes with rights, which **AI is not legally capable of possessing.**

### **About DABUS**

- DABUS stands for device for the autonomous bootstrapping of unified sentience.
- DABUS is an AI system **created by Stephen Thaler, a pioneer in the field of AI and programming.**
- It simulates human brainstorming and creates new inventions.
- DABUS is a particular type of AI, often referred to as “creativity machines” because they are capable of independent and complex functioning.
- This differs from everyday AI like Siri, the “voice” of Apple’s iPhones.

### **Stephen Thaler’s another AI**

- Prior to DABUS, Thaler built another AI which created novel sheet music, and which he credited with inventing the cross-bristle toothbrush design.
- He filed a patent for the cross-bristle design, and it was granted, proving AI’s ability to generate truly novel inventions that meet the standards for patents.
- However, Thaler listed himself, rather than the AI, as the inventor at that time.

### **About Creative Machines**

- Creativity machines can process and critically analyse data, learning from it. This process is known as machine learning.
- Once the machine learning phase has occurred, the machine is able to “autonomously” create without human intervention.
- As has been seen in the Covid pandemic, as just one example, AI is able to solve problems humans were unable to – and also much faster than people can.